

SEQUENCING BY HYBRIDIZATION OF A TARGET NUCLEIC ACID
TO A MATRIX OF DEFINED OLIGONUCLEOTIDES

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ABSTRACT

The present invention provides methods and apparatus for sequencing, fingerprinting and mapping biological macromolecules, typically biological polymers. The methods make use of a plurality of sequence specific recognition reagents which can also be used for classification of biological samples, and to characterize their sources.

15 This application is a continuation-in-part application of commonly assigned patent applications Pirrung et al., U.S.S.N. 07/362,901 (VLSIPS parent) filed on June 7 1989; and Pirrung et al., U.S.S.N. 07/492,462 (VLSIPS CIP), filed on March 7, 1990, which are hereby incorporated herein by reference. Additional commonly assigned applications Barrett et al., U.S.S.N. 07/435,316 (caged biotin parent) filed November 13, 1989; and Barrett et al., U.S.S.N. 07/612,671 (caged biotin CIP), filed November 13, 1990 are also incorporated herein by reference. Additional applications Pirrung et al., U.S.S.N. __/__, attorney docket number 11509-28 (automated VLSIPS); and Dower et al., U.S.S.N. __/__, attorney docket number 11509-26 (microfluorescence sequencing), which are also commonly assigned and filed on the same day as this application, are also hereby incorporated herein by reference.

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